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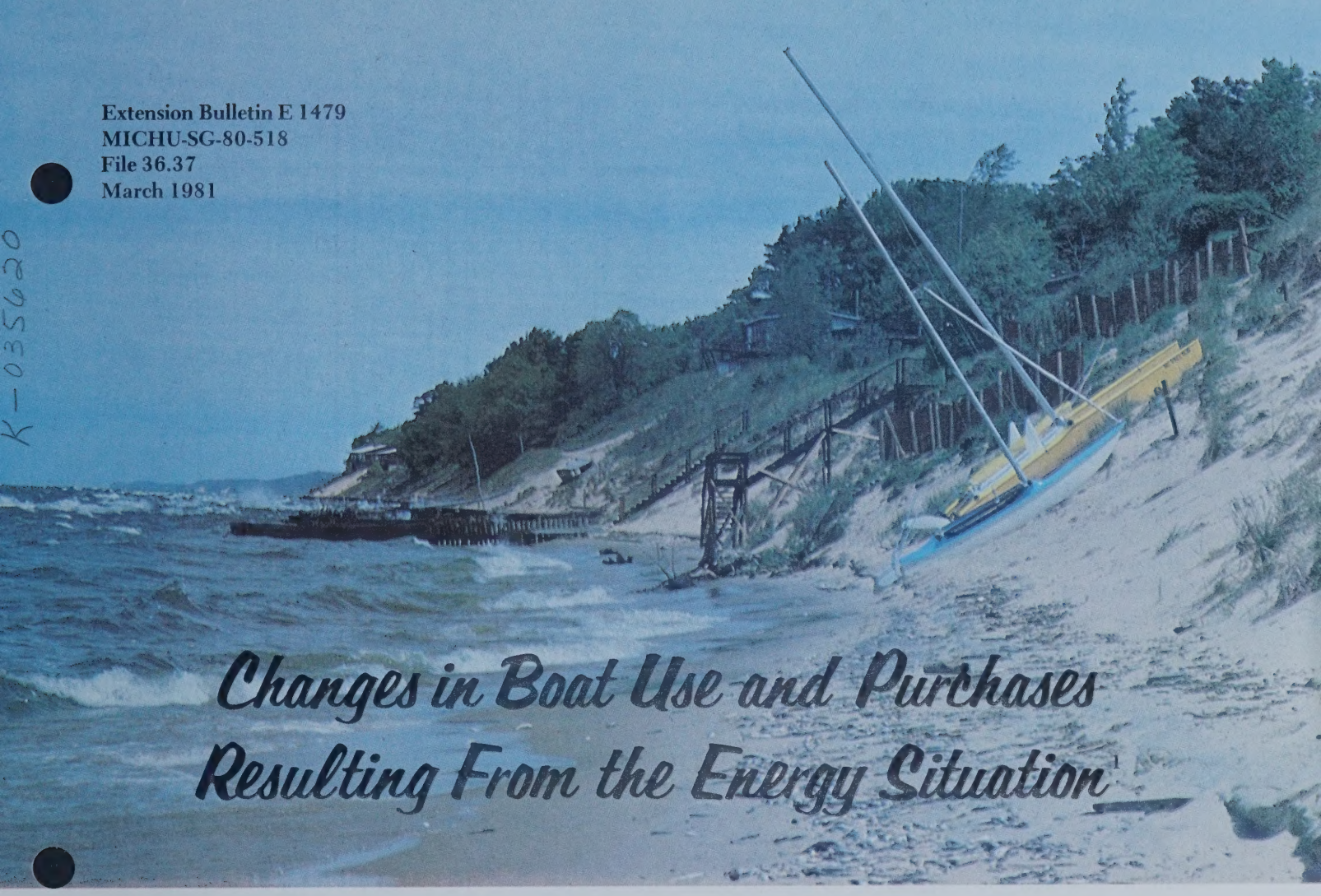

Changes in Boat Use and Purchases Resulting From the Energy Situation[1]

by Gregory Mannesto[2]

Summary

Data collected in a February 1979 survey indicate that an increasing number of recreational boaters are feeling the effects of the energy situation and are reacting to higher prices by changing their boat use and buying patterns. Of the five major boat types surveyed, only sailboat owners reported little change in their boating activities since the energy crisis began in 1973. Most other boaters, inland lakes boaters in particular, show evidence of changing their boating behavior because of rising fuel prices.

The most commonly reported changes in behavior—boating closer to home, using less fuel and staying longer for each visit—are very likely to have significant impacts on the marina industry. For example, these changes may cause a shortage of slip space; on the other hand, marinas which are located some distance from areas of high population may experience a reduction in business.

Although the largest number of boaters responded that they would still like to purchase larger boats, a growing number of people indicated that they would delay these purchases until the economic picture improves.

It should be noted that the survey did not indicate a major switch to sails, although sailing has grown in popularity in the last few years.

Because a large percentage of recreational boaters tend to have higher than average incomes, it is possible that high fuel prices will not signal a sudden or large decrease in large-craft recreational boating activity.

Seventy-seven percent of the total boating population indicated that gasoline shortages would have a much greater effect on their boating than would increasing gasoline prices.

The size and composition of the recreational boating industry make it clearly dependent upon the way people respond to energy shortages and high prices. It is likely that boaters feel some anger, disillusionment, fear, and frustration because they have little control over future fuel prices or supplies. This places the boating industry in a stressful situation. Therefore, it may be beneficial to the boatowner, as well as to the marina operator, to have an idea of what to expect from boaters in the com-

[1]Supported in part by NOAA, Sea Grant number NA-80-AA-000-72
[2]Former Research Assistant, Department of Park and Recreation Resources; presently Research Assistant, Department of Resource Development.

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ing years. The following report compares facts from two different surveys and presents the facts in a comparative fashion, building a case to show how different types of boaters and boatowners are responding since 1973 to the energy situation.

Comparison of the Two Studies

In a 1973 study, registered large boatowners in southwestern Michigan, northwestern Indiana, and northeastern Illinois were surveyed[3]. The objective was to determine the anticipated effects of the fuel shortage and higher fuel prices. In February 1980, a study was conducted by the author among boatowners who were attending the Greater Michigan Boat and Fishing Show in Detroit. The respondents to this survey represent 34 counties in Michigan, although respondents came mainly from southeastern Michigan. The 1973 survey results were derived from 763 questionnaires, while the 1980 survey employed data from 467 questionnaires.

The data comparing the two should be examined with the understanding that they represent two different sample populations, using two different techniques. The first survey was a mailed questionnaire to people who owned boats larger than 20 feet, while the second survey, was a personally administered questionnaire at the Greater Michigan Boat and Fishing Show to owners of boats of all sizes. The average size of the boat owned in the latter survey was 22 feet, the average income was $25,500 and the average age was 37.7 years. The major boating area of most boaters in this study was the Great Lakes (62.6%), while 37.4% of the boaters preferred inland lakes. The Great Lakes boaters launched most of their boats from the following counties: Wayne, St. Clair, Macomb and Monroe. The inland lakes boaters did most of their boating in the counties of Oakland, Macomb, Washtenaw and Wayne.

Effects of the Energy Situation on Boaters

In 1973, 58.2% of the large boatowners surveyed indicated that the energy situation had no effect on their boating behavior (Figure 1). In 1980, however, only 44.8% of those surveyed anticipated no effect. This suggests that a growing number of boaters are being affected by increasing fuel prices.

When asked how they would change their boating patterns to cope with the energy situation, the most common answers by respondents in 1973 were: *make fewer trips*, *stay longer for each visit* and *delay new boat purchases.*

In the latest survey, boaters reported that in 1979 they *made fewer trips*, *boated closer to home* and *used less fuel* as a result of higher prices. Many of these respondents indicated that they planned to *stay longer each visit* during the 1980 boating season.

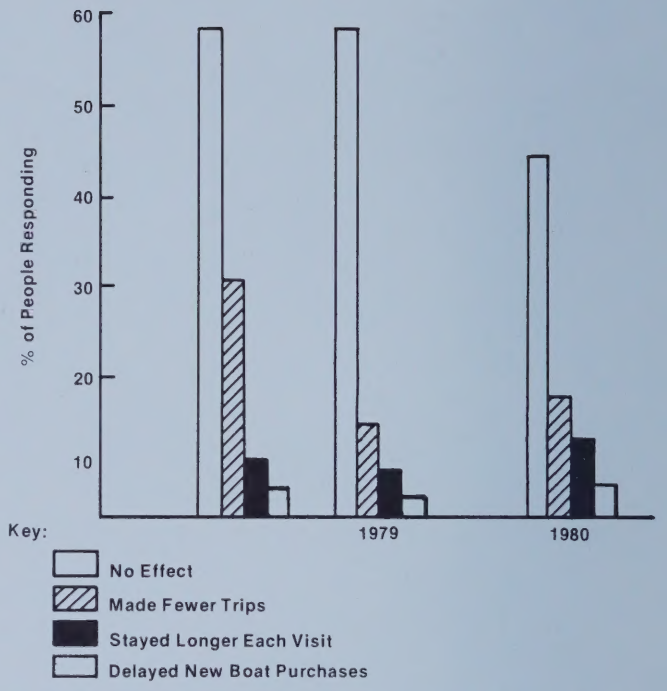

Figure 1. Comparison of the Percentage of Boaters Indicating "No Effect" and Other Behavioral Responses in 1973, 1979, and 1980

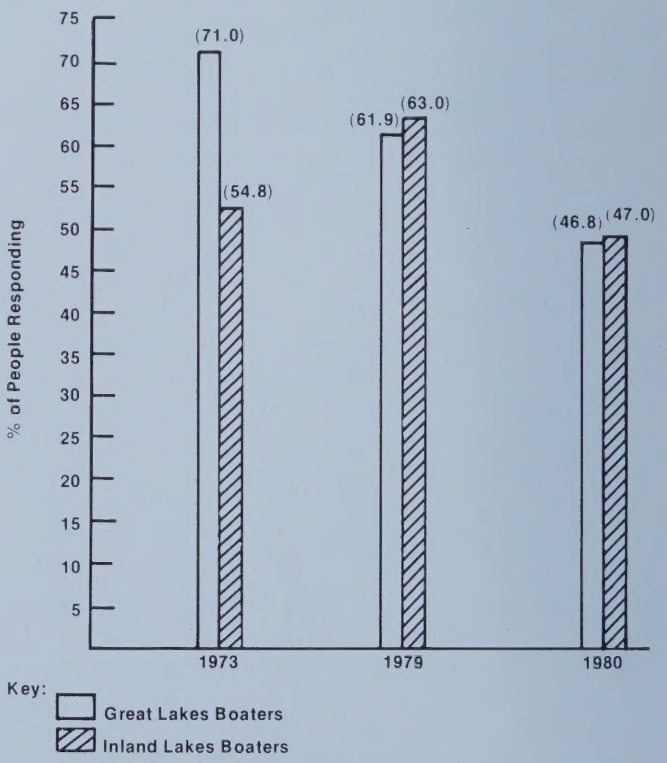

Figure 2. Comparison of the Percentage of Inland Lakes and Great Lakes Boaters Indicating "No Effect" in 1973, 1979, and 1980

[3]Donald F. Holecek, associate professor, Department of Park and Recreation Resources, Michigan State University, and C. Han, former research assistant, Department of Park and Recreation Resources, Michigan State University.

Comparison of Great Lakes Boaters to Inland Lakes Boaters

By 1980, the number of Great Lakes boaters who indicated that they were being affected by the energy situation increased only slightly since 1973 (Figure 2). A much more drastic change was noted in the attitudes of inland lakes boaters: while 71% of the inland lake boaters indicated that they were not affected by the 1973 energy shortages, only 46.8% reported no effect from the high prices in 1980.

To lessen the effect of the high prices and possible fuel shortages, the inland lakes boaters cited *reduced fuel consumption*, *fewer trips* and *boating closer to home*, as the primary changes in their boating patterns. Great Lakes boaters agreed with the first two changes but said they would *rent marina slips closer to home* as their third alternative.

In addition to changing habits to reduce boating expenses, 4.3% of the inland lake boaters and 5.6% of the Great Lakes boaters said they planned to *delay boat buying* in 1980.

Type of Craft

Among all boatowners, those who operate cabin cruisers and houseboats reported experiencing the greatest effects from high fuel prices (Figure 3). In response to the energy situation, a large number of those sampled in this group anticipate changing their boating patterns in 1980 by *using less fuel*, *making fewer trips* and *staying longer during each visit*.

As expected, sailboat owners were the group least affected by the energy situation. However, owners of non-powered sailboats indicated a slightly greater effect from the energy situation than did powered sailboat owners. This difference could be due to income, because non-powered sailboat owners' average income is $22,300, while that of powered sailboat owners is $27,400.

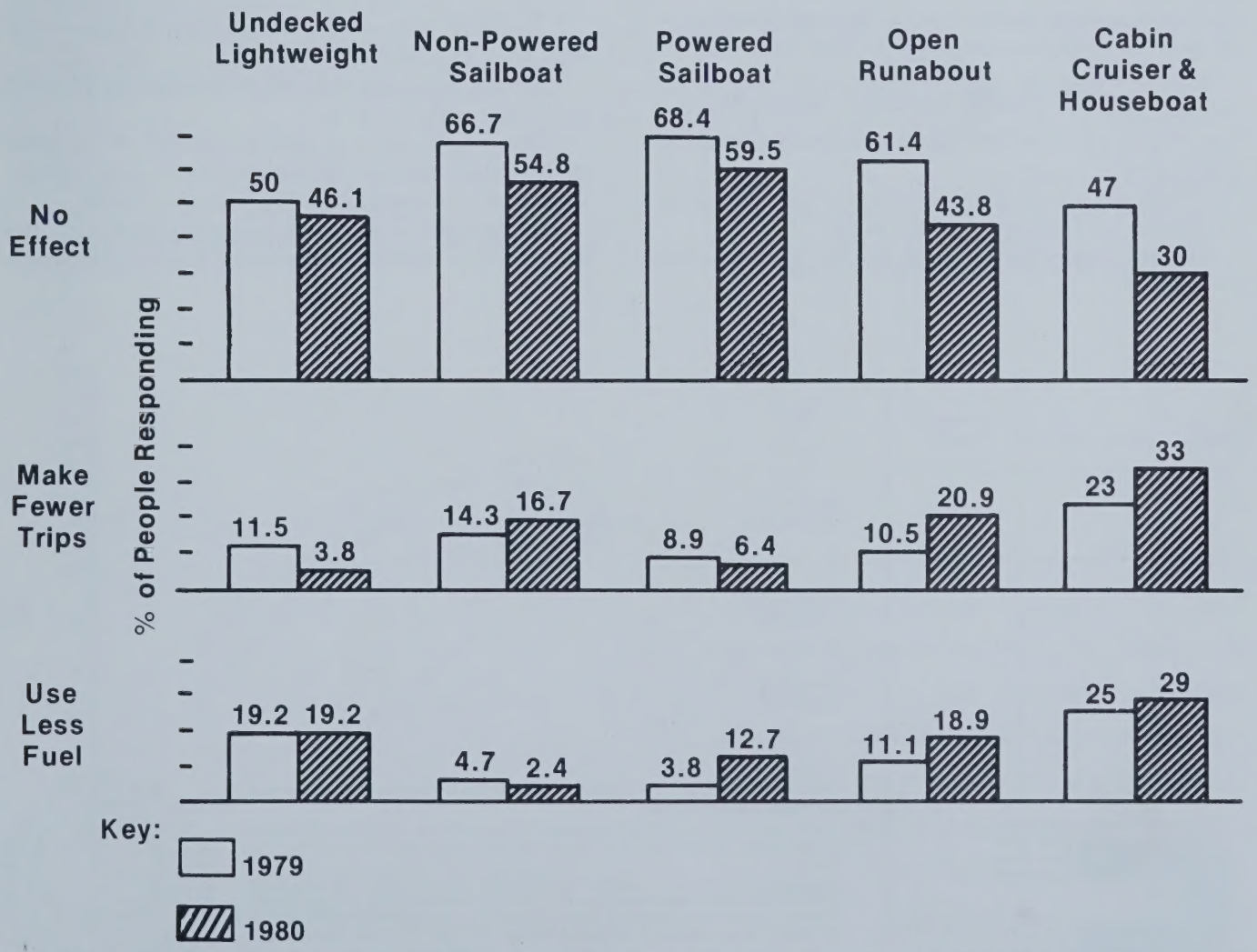

Figure 3. Comparison of the Percentage of Different Types of Boatowners Indicating "No Effect" and Other Behavioral Responses in 1979 and 1980

Owners of all major craft types expected to be even more affected by the energy situation in the summer of 1980. A larger percentage of boaters in each category planned to increase their use of the following behavioral changes in 1980: *use less fuel, make fewer trips, stay longer during each visit, boat closer to home* and *delay purchase of a new boat.* The number of people responding that they would delay boat purchases in 1980 rose most drastically among owners of cabin cruisers, houseboats and open runabouts.

Responses by Major Recreational Activity

In the 1980 survey, respondents were asked their major form of recreational activity. Although a large percentage of water skiers indicated that they felt no effect from the energy situation in 1979 (70.3%), a much smaller number indicated that there would be no effect in 1980 (33.3%). This group reported the most severe effects of the changing energy situation from 1979 to 1980 (Figure 4).

Boaters whose chief recreational activity is cruising for pleasure reported that they adjusted to the energy situation by *using less fuel, making fewer trips* and *staying longer for each visit.*

As anticipated, sailing is the activity least affected by the energy situation in 1980.

When asked about plans for purchasing new boats, 11.5% of those who cruise for pleasure and 9.1% of those who fish said they planned to *delay boat purchases* in 1980.

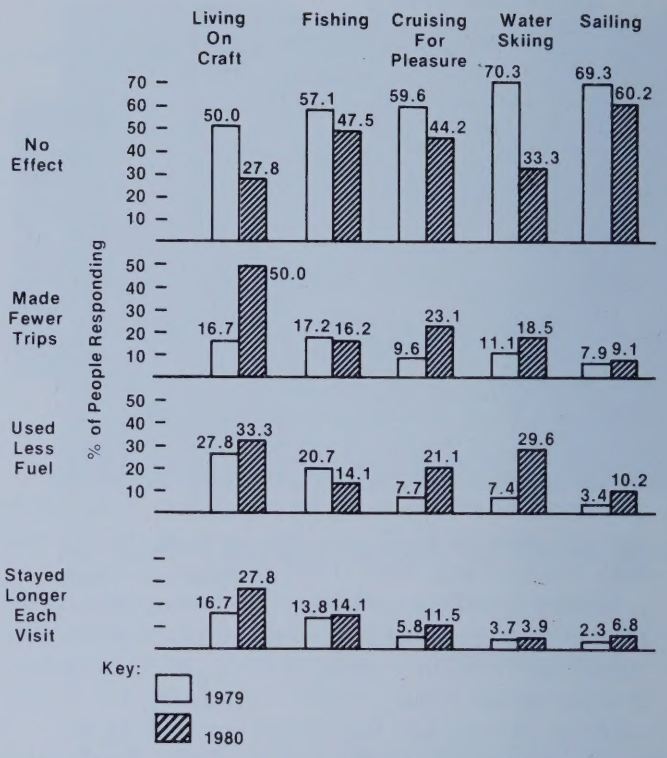

Figure 4. Comparison of Percentage of Different Recreational Activities of Boaters Indicating "No Effect" and Other Behavioral Responses in 1979 and 1980

Fuel Use by Craft-Type

The average amount of marine fuel used in 1979 was approximately 185 gallons. About 60% of the respondents use 100 or less gallons per year.

The greatest fuel use was reported by owners of cabin cruisers and houseboats. They used an average of approximately 379 gallons per year (Figure 5), with 27% using more than 500 gallons per year. Sailboat owners reported an average annual fuel use of less than 18 gallons per year.

Those surveyed were asked whether they expected to buy more or less fuel in 1980 than in previous years. More water skiers said they would use less fuel in 1980 than any other group (Figure 6). Although the greatest number of respondents said they would use the same amount of fuel in 1980 as they had in 1979 (56.8%), nearly 28% responded that they planned to use more fuel in 1980, while about 15% indicated they would use less. Boaters who indicated they would use less fuel planned on reducing their fuel use by 48.9%, while those boaters who planned on increasing their fuel use indicated an average increase of 90.6%.

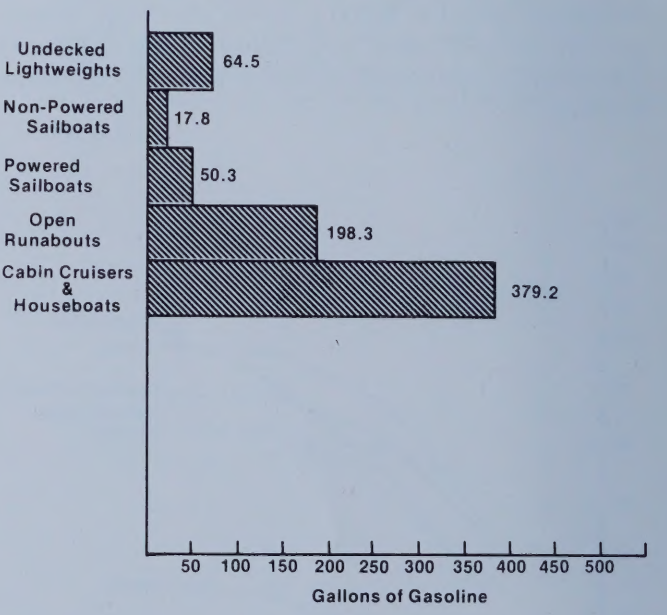

Figure 5. Average Fuel Use by Recreational Boaters - 1979

Travel for Boating as Prices Increase

The survey response indicated that the price of gasoline has a direct effect on the amount of travel people make for boating. In a price breakdown, 65% of all boaters indicated that they would not cut back travel if

	Living On Craft	Fishing	Cruising For Pleasure	Water Skiing	Sailing	Total
Use Same Amount In 1980	46.7	52.9	52.1	45.8	69.7	56.8
Use Less In 1980	13.3	18.8	18.7	25.0	6.6	15.3
Use More In 1980	40.0	28.2	29.2	29.2	23.7	27.8

Figure 6. Change in Fuel Use From 1979 to 1980

gasoline was priced at $1.50 per gallon. If the price were to jump to $3.00 a gallon, however, 62.3% said they would change their travel patterns.

Boaters would cut back travel for boating an average of 10.4% at $1.50/gallon, while at $2.00/gallon they would cut back an average of 20%. At $2.50/gallon, boaters would reduce travel for boating by 31.7%, while at $3.00/gallon they would cut back 42.5%.

These reductions roughly figure out to a cutback of 10% for each 50¢ rise in the price of gasoline.

Those who live on their boats indicated they would be most likely to cut back travel at $1.50 per gallon prices, while water skiers said they would reduce travel drastically (80%) at $3.00 a gallon (Figure 7). Sailors plan to cut back travel only slightly. Great Lakes and inland lakes boaters exhibit similar changes in travel for boating.

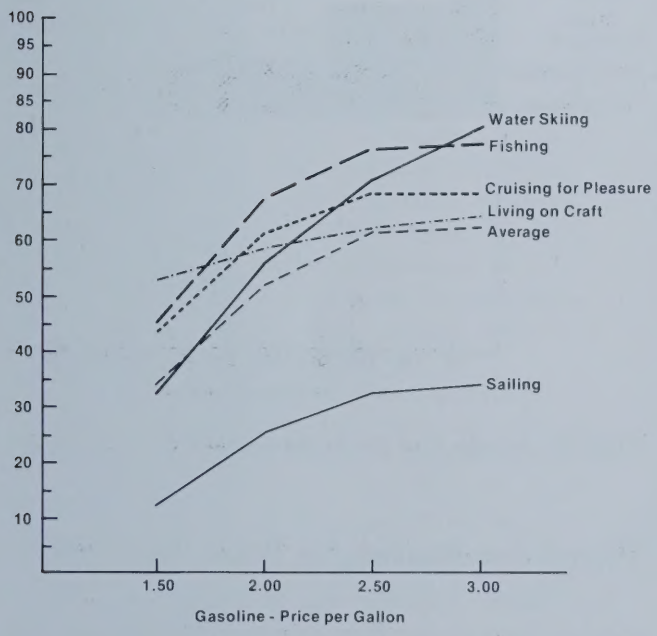

Figure 7. Percentage of the Boaters Cutting Back Some Travel for Boating at Different Price Levels

Seventy-seven percent of all the boaters said gasoline shortages would affect their travel for boating more than higher fuel prices.

Future Boat Purchases

Most boaters agree that there is a serious energy problem and that they may have trouble obtaining fuel in the future. Nevertheless, 65% indicated that they would still like to purchase a larger boat than the one they presently own; 28% said they would like to replace their present boat with one the same size and only 7% said they would like to buy a smaller boat.

The average size boat in this study was 22 feet, with 30 feet being the size most frequently preferred.

Although the open runabouts represented a large portion of the boats currently owned by those sampled, this category experienced the most negative outlook for future purchases by the boaters (Figure 8).

Sailboat owners indicate that they would continue to buy sailboats with no major shift from any other craft types.

In general, a large number of people wish to purchase a larger boat, the most popular category to move up to being that of cabin cruisers and houseboats.

Potential Market Alternatives Suggested by the Data

- Marinas, lakes and rivers near population centers are going to experience increased pressures if the energy situation continues its present direction.
- The level of boating will decrease in direct relation-

Type of Craft	Present Craft	Future Replacement	Percentage of Change
Undecked Lightweight	6.5	3.4	- 3.1
Non-Powered Sailboat	10.5	11.8	+ 1.3
Powered Sailboat	19.8	22.1	+ 2.3
Open Runabout	38.2	29.3	- 8.9
Cabin Cruiser & Houseboat	25.0	33.3	+ 8.3

Figure 8. Comparison of Percentages of Present Ownership to Future Replacement

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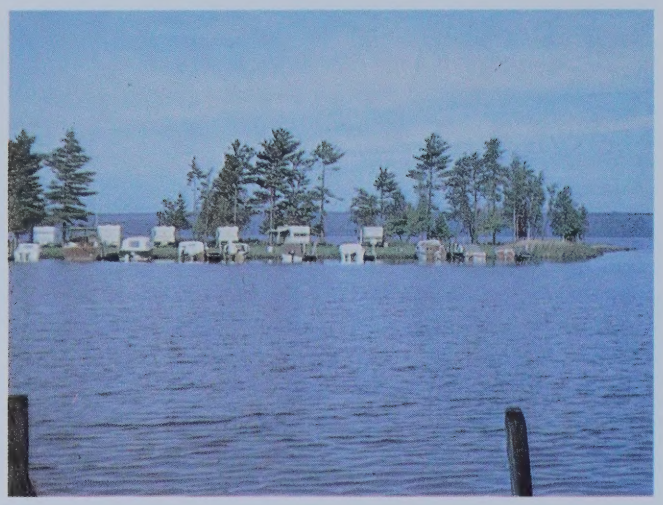

Boaters indicated that as fuel prices increased, trips would decrease. However, boaters planned on staying longer each visit.

Because boaters plan on staying longer each visit, marinas may attract more boaters.

ship to rising fuel prices, with an approximate cutback of 10% for each 50¢ rise in the price of fuel.

- Boaters plan on staying longer each visit, so the marinas that can provide more complete recreational experiences and services will have an advantage in attracting more boaters.
- When the energy situation becomes unstable, many people put off purchasing a new boat.
- Power boaters are not going to make a massive shift to sailboats.
- The large-boat sector is less affected by high energy costs than smaller-craft sectors.
- Energy shortages will affect boating significantly more than higher prices.
- Because the price of gasoline leveled off in 1980, compared to unstable 1979 prices, the boating industry should see more people moving into the market.
- In the future, a shift from energy-intensive activities to less energy-intensive recreational boating activities is expected.

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